

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS:

1.-14. (Canceled)

15. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

a forming flap carried by each jaw and having a respective half-shell forming portion, the forming flaps of each pair of jaws being movable between a withdrawn position in which they do not cooperate with the tube and a forward position in which the respective half-shell forming portions surround the tube in the closed position of the respective jaws to form a cavity of predetermined volume;

a fixed cam formed as a flat plate;

cam-followers carried by the forming flaps, the cam-followers contacting and moving along and engageable with respective work profiles of the fixed cam during

operation of the unit to control approach movement of the forming flaps from the withdrawn position to the forward position;

the work profiles of the fixed cam comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the work profiles forming the first pair of work profiles being spaced apart from one another in a width-wise direction of the fixed cam, the first pair of work profiles being offset from the second pair of work profiles in a thickness direction of the flat plate forming the fixed cam, with the first pair of work profiles being engageable contacted by the cam followers of two forming flaps of a first type to control the approach movement of the two forming flaps of the first type towards each other and towards the tube, and the second pair of work profiles being engageable contacted by the cam followers of two forming flaps of a second type, which differ in size relative to the two forming flaps of the first type, to control the approach movement of the two forming flaps of the second type towards each other and towards the tube.

16. (Previously Presented) A unit as claimed in Claim 15, wherein the first and second work profiles form a top cam of the fixed cam, and wherein the fixed cam also comprises a bottom cam which controls closing movement of the two forming flaps of the first type and the two forming flaps of the second type.

17. (Previously Presented) A unit as claimed in Claim 16, wherein the bottom cam comprises a single pair of work profiles which are engageable by the cam followers of the two forming flaps of the first type and the cam followers of the two forming flaps of the second type.

18. (Previously Presented) A unit as claimed in Claim 15, wherein the first and second work profiles are positioned at a top portion of the plate forming the fixed cam.

19. (Canceled)

20. (Canceled)

21. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming ~~assembly's~~ assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

a forming flap carried by each jaw and having a respective half-shell forming portion, the forming flaps of each pair of jaws being movable between a withdrawn position in which they do not cooperate with the tube and a forward position in which the respective half-shell forming portions surround the tube in the closed position of the respective jaws to form a cavity of predetermined volume;

two cam-follower rollers mounted on each forming flap and spaced apart from one another;

two fixed cams each formed as a flat plate and spaced apart from one another;

the two fixed cams each comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the first pair of work profiles of each fixed cam being spaced apart from one another in a width-wise direction of the fixed cam, the first pair of work profiles of each fixed cam being offset from the second pair of work profiles of the respective fixed cam in a thickness direction of the flat plate forming the respective fixed cam;

the first pair of work profiles of each fixed cam being contacted engageable by one of the cam follower rollers of one of the forming flaps of a first type and one of the cam follower rollers of another of the forming flaps of the first type to control approach movement of the one forming flap and the other forming flap of the first type towards each other and towards the tube during operation of the unit for producing packages of a first size; and

the second pair of work profiles of each fixed cam being contacted engageable by one of the cam follower rollers of one of the forming flaps of a second type and one of the cam follower rollers of another of the forming flaps of the second type, which differ in size relative to the forming flaps of the first type, to control approach movement of the two forming flaps of the second type towards each other and towards the tube during operation of the unit for producing packages of a second size different from the first size.

22. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

two first forming flaps each adapted to be carried by the jaws of one pair and each having a respective half-shell-forming portion, the two first forming flaps being movable between a withdrawn position in which the two first forming flaps do not cooperate with the tube and a forward position in which the respective half-shell forming portions of the two first forming flaps surround the tube in the closed position of the respective jaws to form a first cavity of a first predetermined volume;

two second forming flaps each adapted to be carried by the jaws of the one pair and each having a respective half-shell-forming portion, the two second forming flaps being movable between a withdrawn position in which the two second forming flaps do not cooperate with the tube and a forward position in which the respective half-shell forming portions of the two second forming flaps surround the tube in the closed position of the respective jaws to form a second cavity of a second predetermined volume;

the two first forming flaps possessing a size different from the size of the two second forming flaps so that the first predetermined volume differs from the second predetermined volume;[[.]]

two cam-follower rollers mounted on each of the first and second forming flaps and spaced apart from one another;

two fixed cams each formed as a flat plate and spaced apart from one another;

the two fixed cams each comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the first pair of work profiles of each fixed cam being spaced apart from one another in a width-wise direction of the fixed cam, the first pair of work profiles of each fixed cam being offset from the second pair of work profiles of the respective fixed cam in a thickness direction of the flat plate forming the respective fixed cam;

the first pair of work profiles of each fixed cam being contacted engageable by one of the cam follower rollers of one of the first forming flaps and one of the cam follower rollers of an other of the first forming flaps during operation of the unit to control approach movement of the one first forming flap and the other first forming flap towards each other and towards the tube; and

the second pair of work profiles of each fixed cam being contacted engageable by one of the cam follower rollers of one of the second forming flaps and one of the cam follower rollers of an other of the second forming flaps of the second type during operation of the unit to control approach movement of the one second forming flap and the other second forming flap towards each other and towards the tube.

23. (Previously Presented) A unit as claimed in Claim 22, wherein the two cam-follower rollers mounted on one of the first forming flaps are spaced apart a first distance measured from a central plane of each of the two cam-follower rollers mounted on the one first forming flap, and the two cam-follower rollers mounted on an other of the first forming flaps are spaced apart the first distance measured from a central plane of each of the two cam-follower rollers mounted on the other first forming flap, and wherein the two cam-follower rollers mounted on one of the second forming flaps are spaced apart a second distance measured from a central plane of each of the two cam-follower rollers mounted on the one second forming flap, and the two cam-follower rollers mounted on an other of the second forming flaps are spaced apart the second distance measured from a central plane of each of the two cam-follower rollers mounted on the other second forming flap, the first distance being different from the second distance.

24. (Previously Presented) A unit as claimed in Claim 23, wherein the two first forming flaps possess a size smaller than the size of the two second forming flaps, and the first distance is less than the second distance.